

The Silver Market: Perspectives from Singapore

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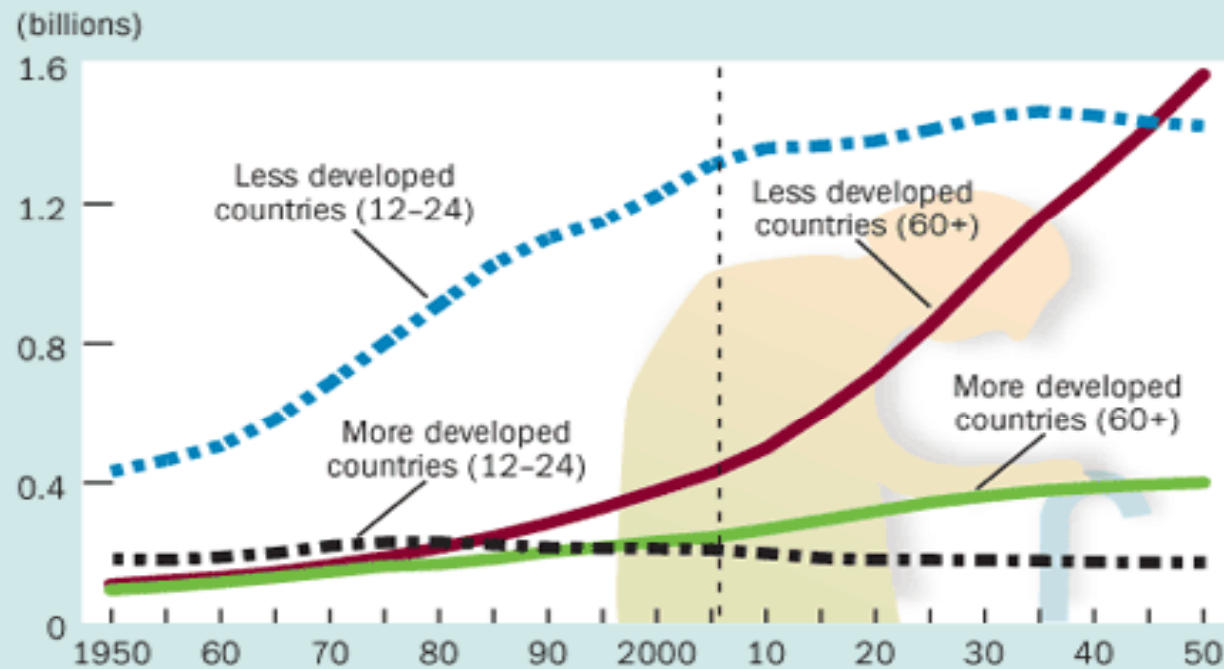
- Introduction
- Demographic Changes
- Appropriate R&D and Innovation
- Silver Market Reality
- Concluding Remarks

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Demographic Change

The world's population is aging and, in developed countries, the size of the elderly population has already surpassed that of the 12-24 age group.



Source: IMF, 2006

Business Implications of Demographic Change

Demographic Change

- Aging
- Shrinking



Challenges/threats

- Workforce crisis
- Lost knowledge
- Shrinking customer base

Chances/opportunities

- Silver market/ Silver business
- New product offerings
- New service offerings

Singapore

- newly developed nation
 - youthful spirit; vibrant economic development; young leadership
- ⇒ Ageing nation ? ?
- ⇒ affordable health care cost
 - ⇒ quality lifestyle & living environment for its senior citizens

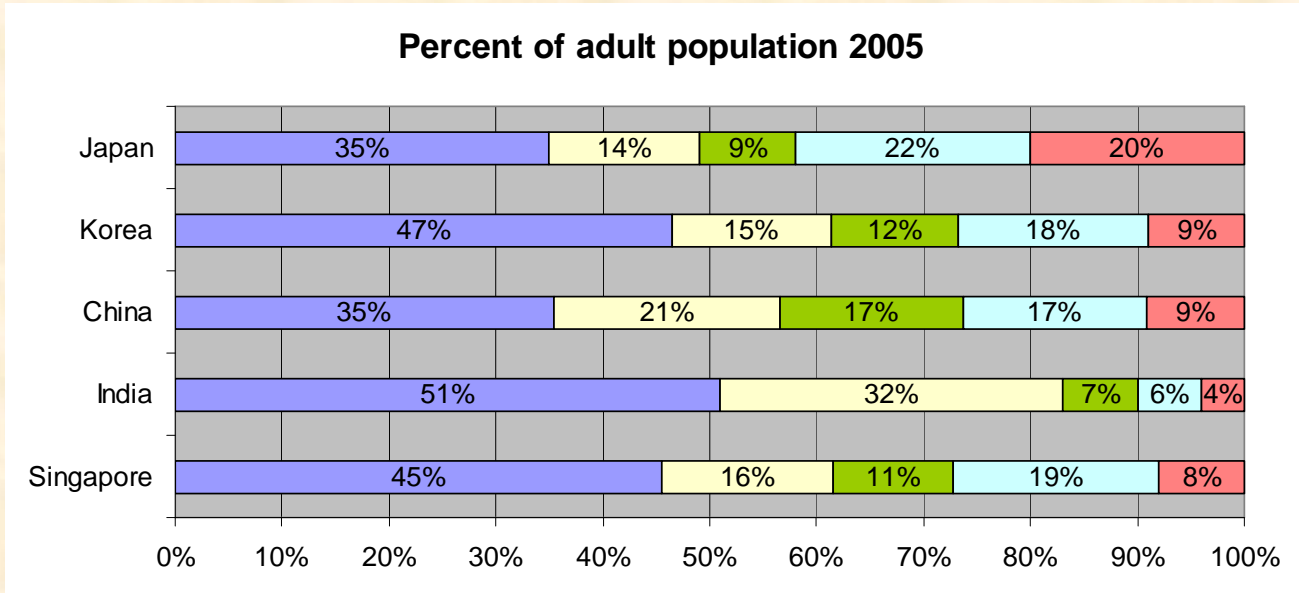
In this paper:

- Implications of Demographics Changes in S'pore
- Potential Solutions
 - technology perspective
 - business development and innovation perspective

Demographic Changes

- What will be the demographic landscape of Singapore in 2020?
 - Fig. 1(a) \Rightarrow Even in 2005, more than 50% adults (> 14 yrs old) are not in “family with children situation”
 - Fig. 1(b) \Rightarrow By 2020, retired adults increased from 8% to 21% (+ 160% !); “working age empty nesters” increased from 19 to 25% (+ 31%)

(a)



Arranged in the sequence (from left to right):

- Young Single/Married with no kids;
- Young married - a child < 10;
- Married youngest child >9 & <20;
- Empty Nesters and old singles;
- Retired.

(b)

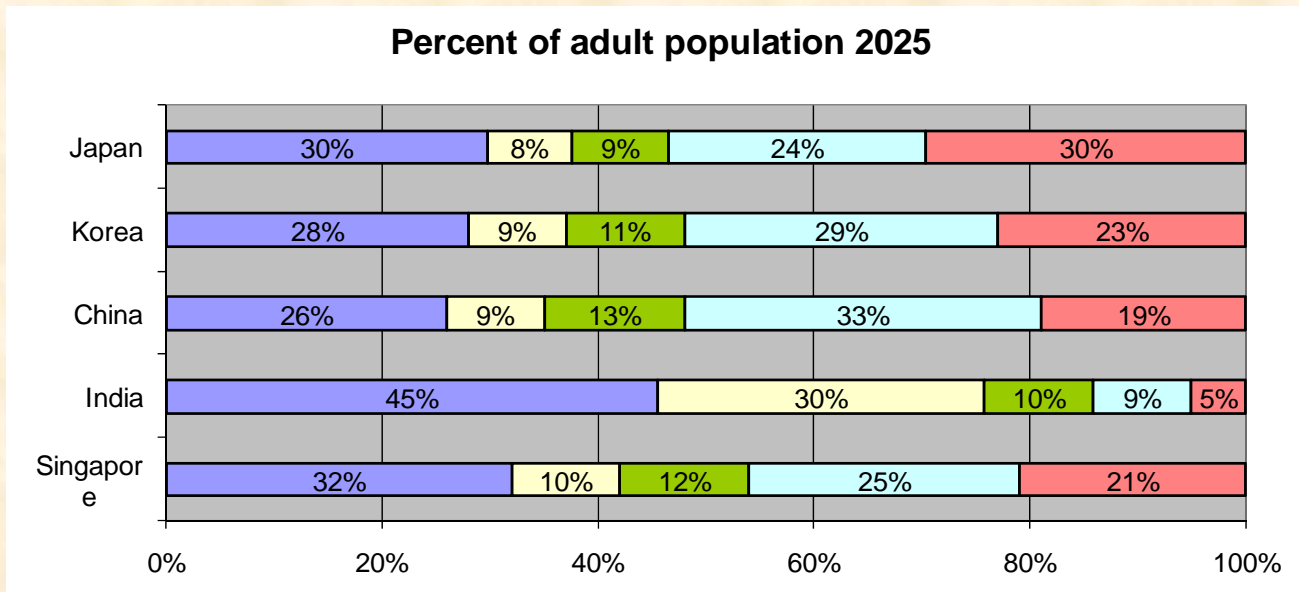
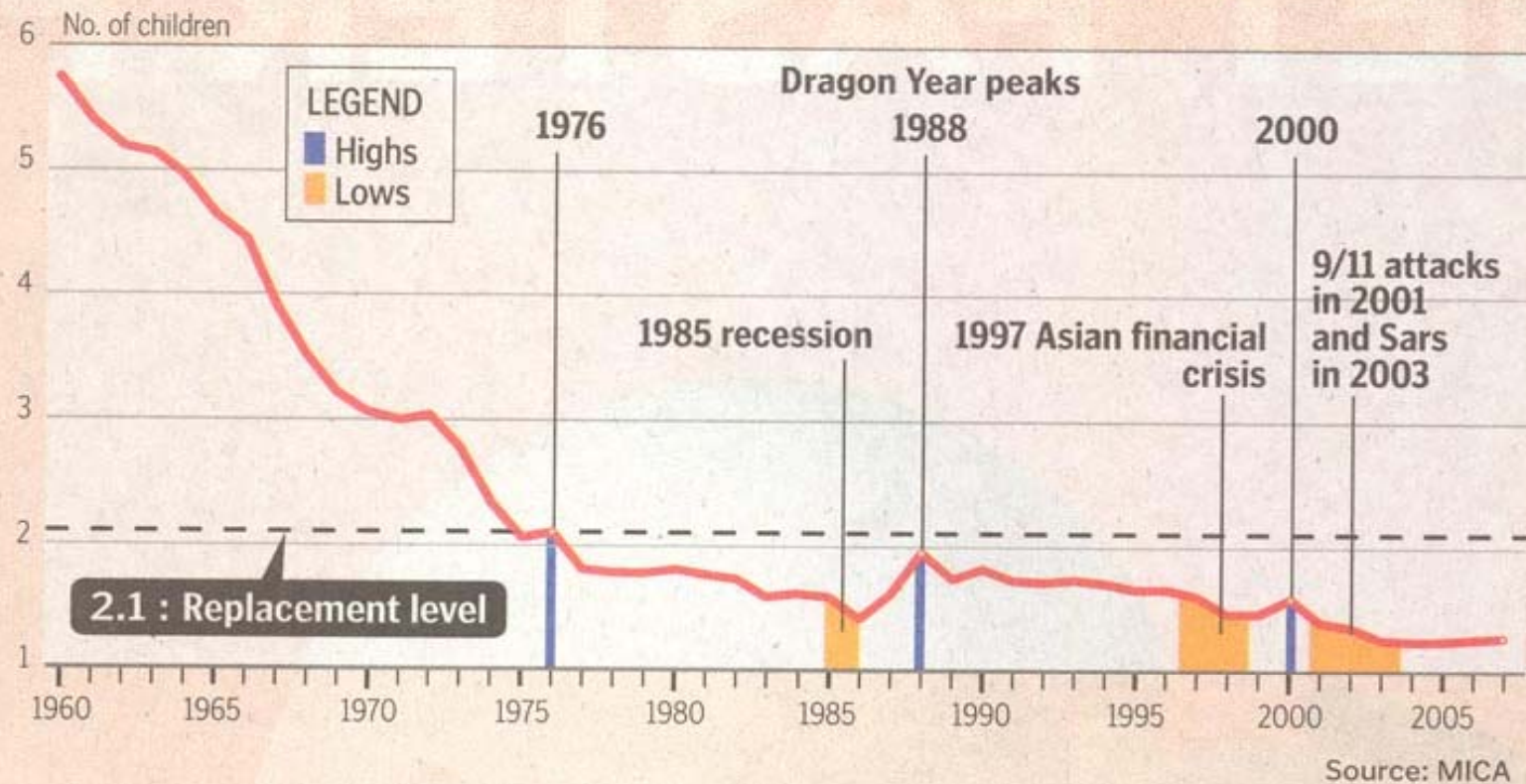


Fig 1 Comparison of Lifestyle Profiles 2005 and 2025 (extracted from [1])

■ WHAT AFFECTS THE BABY POPULATION

Culture, economy and policies have affected Singapore's Total Fertility Rate, or the number of children a woman, on average, has over her lifetime.



- Silver-haired (Aged) Population
- Aggravated by the low fertility rate (far below the replacement level)

- government to relax immigration rule
- public and private sector companies need to get better prepared
 - ❖ avoid/reduce threats
 - ❖ take advantage of emerging opportunities

Public Sector Research:

- Two major universities (NUS & NTU) :

multidisciplinary engineering research which creates relevant technologies that may have impact on personal wellness, quality lifestyle and living environment for the aged

Example: “Assistive Technology for Personal Wellness and Quality Living”

- Research institutes under Agency for Science, Technology & Research (Institute for Infocomm Research, S’pore Institute of Manufacturing Technology, etc) develop enabling technologies.
- National Research Foundation – Special Call for Competitive Research Programme in the area of Ageing Population.

Matrix Chart showing the projects and their linkage to various research objectives



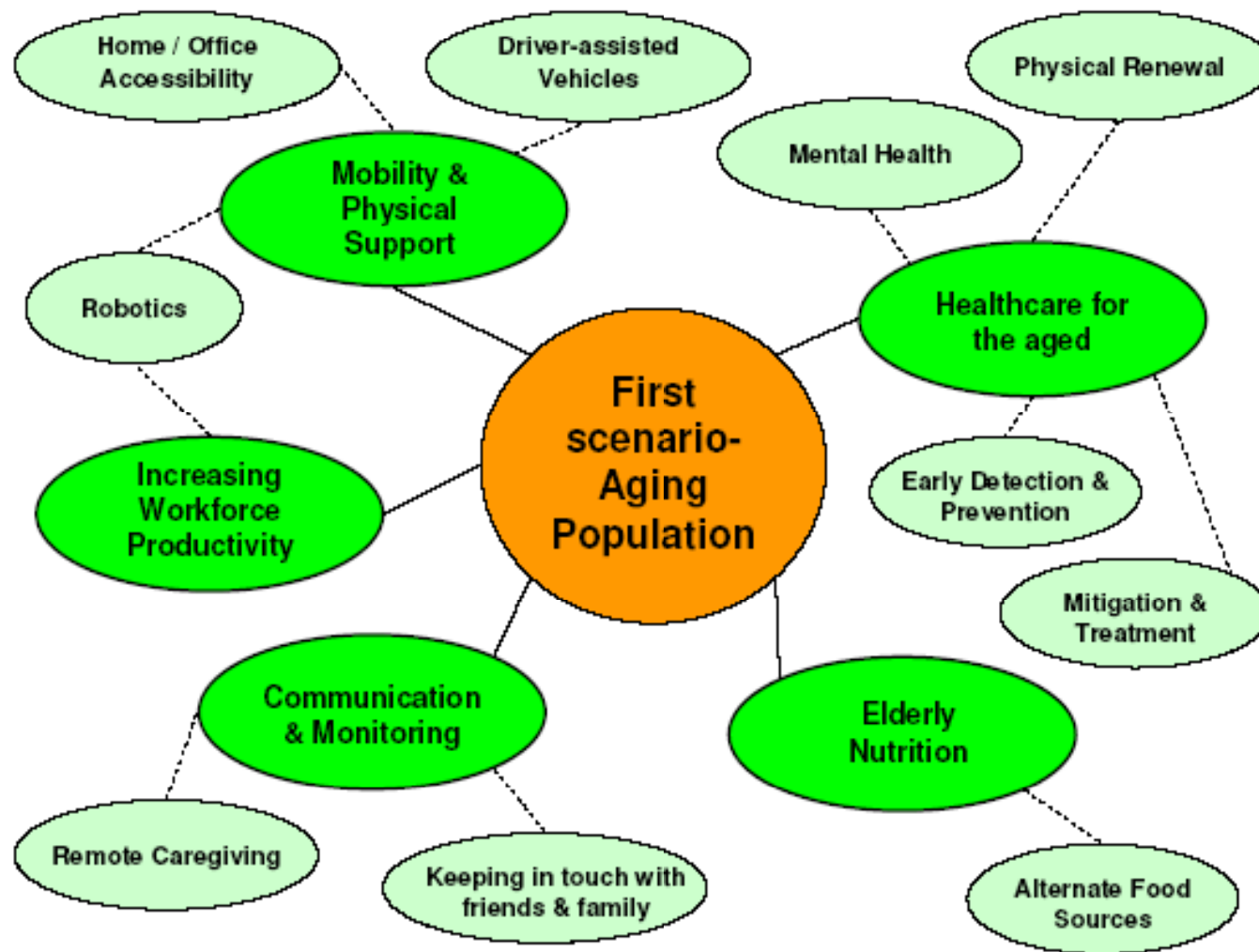
No.	Project title	Promoting healthy lifestyle	Improved diagnostic and monitoring techniques for degenerative illnesses	Improved treatment compliance	Support for care giving
1.	Augmented Reality (AR) in Assistive Technology (AT) Devices	√			√
2.	Smart Living Environment	√	√	√	√
3.	Improved Diagnostic, Monitoring & Treatment Techniques for Degenerative Diseases	√	√	√	√
4.	Development of An Intelligent Physiotherapy System	√	√	√	√
5.	Intelligent electro-acupuncture technology and Device			√	√
6.	Context-dependent medication Serving system			√	√
7.	Development of a Computer- Controlled Adjustable Seat System for Therapeutic and Rehabilitation Purposes	√			√
8.	Wireless Sensor Networks in Home Environment for Telephysiotherapy	√	√		√
9.	Ambient Assisted Living for the Dependant Society	√			√
10.	Balancing Rehabilitation Training and Control for Individuals with Weak Motors		√	√	√
11.	Rehabilitation of Hand Function after Stroke	√		√	√
12.	Detection of Abnormal Conditions in Activities of Daily Living	√	√		√
13.	Assistive Technology for Diabetes Management	√	√	√	√

Fig. 2 An Example of broad R&D proposal

Singapore in 2020

- Scenario 1: Ageing Society
 - Mobility
 - Healthcare
 - Communication
 - Productivity/Autonomy

Socio-economic issues can be incorporated in the programme



Private Sector:

- First-ever Silver Industry Conference & Exhibition in S'pore held on 12-13 Jan 2008
 - ⇒ 35 companies (mostly new high-end or matured products already proven in advanced countries)
- Tiny market (population of 4.5 million)
- But Singapore could be a good test-bed for new products for the mass markets in Asia (outside Japan)
 - ⇒ Disruptive Products ??

- Majority of aged consumers may need specific health care on a prolonged basis as they are living longer
- Healthy senior citizens (better educated) want a reasonable lifestyle

⇒ Silver Market: price-sensitive and price-performance

Disruptive Technologies: “Good enough” performance, simple-to-use and affordable !

Silver Market Reality

- Spire's Research (2007)
 - only 23% of international companies in 11 regional companies currently employed marketing strategies targetting the population aged over 50
- Singapore Government's strategies include attracting MNCs to use Singapore as a R&D hub to "Asianise" their products and also use Singapore as a "test-bed" for Asia.

- One advantage of Singapore is that the Government could play a role (with its Ministerial Committee on Successful Ageing) :
 - public budget to help test-bedding disruptive solutions which are affordable with “good enough” functionalities and quality for the benefit of heartland seniors
 - from S’pore to the region, similar to the spread of S’pore style public housing (Surbana exporting knowhow and solutions to Middle-East, China, etc)

Concluding Remarks

- Huge opportunity for S'pore-based MNCs and SMEs which apply the right innovation strategies to develop appropriate products and services
- Key technologies developed in the R&D labs of public and private organizations tend to be radical, high-end applications. We need to quickly reshape them as disruptive technologies suitable for the silver market.